

Black-throated Green Warbler

Setophaga virens

The song of the Black-throated Green Warbler, one of our most abundant woodland warblers, is ubiquitous among cool, wooded ravines and shady hemlock forests. Vermont lies along the eastern portion of the Black-throated Green Warbler's breeding range, which extends westward across southern Canada from Newfoundland and Labrador to British Columbia, throughout the Great Lakes states, across New England and New York, and southward along the Appalachian Mountains to Alabama. Disjunct breeding populations occur on the coastal plain of Virginia and the Carolinas, and in northwestern Arkansas (Morse and Poole 2005).

Although the Black-throated Green Warbler breeds in a variety of interior forest habitats ranging from pure deciduous to lowland spruce-fir, in Vermont it reaches its greatest abundance in stands of northern hardwoods mixed with pockets of hemlock or red spruce, which appear to be an important habitat component for this species. Nest building occurred in Vermont between 15 May and 15 July (N = 14) and fledged young (N = 52) were recorded between 20 June and 1 August; July and August dates are likely second nesting attempts following an earlier nest failure.

The Black-throated Green Warbler occurred on at least 85 percent of the priority blocks in all biophysical regions of the state except the Champlain Valley, where it was limited to 58 percent of priority blocks. Vermont Forest Bird Monitoring Program data further demonstrates the ubiquity of the species; from 1989 to 2006, it was the third most abundant species on point count surveys (average of 0.54 birds per point) and the fifth most frequently encountered species, detected at two-thirds of the 30 to 125 point count stations that were surveyed in a given year (VCE unpubl. data).

Since the first atlas, the distribution of the Black-throated Green Warbler expanded across western portions of Vermont, while showing virtually no change from the Green Mountains eastward. In the agriculturally dominated Champlain Valley and in the Taconic

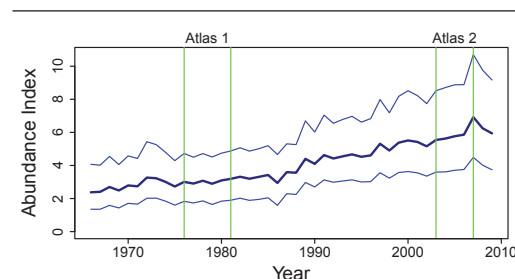


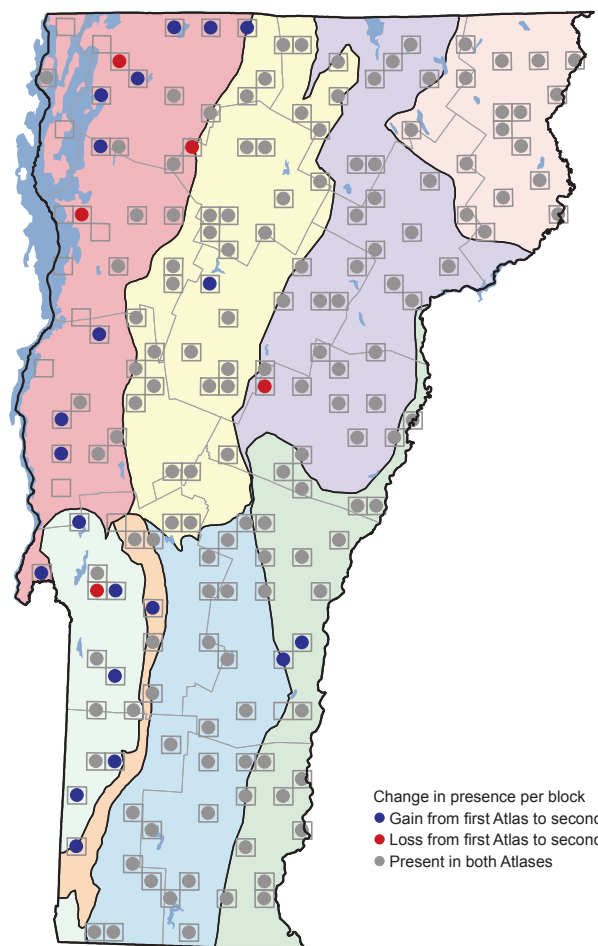
Mountains, the species was found on 55 percent more blocks during the second atlas, presumably due to forest maturation.

Statewide and regional monitoring programs indicate that Black-throated Green Warbler populations are stable or increasing slightly. Though Vermont Forest Bird Monitoring Program data showed no trend, Breeding Bird Survey data from 1982 to 2007 indicate significant 2.3 and 1.8 percent per year population increases in the state and the eastern region, respectively (Sauer et al. 2011). According to other second atlas results, the distribution of the Black-throated Green Warbler expanded in New York by 29 percent (McGowan and Corwin 2008), in Pennsylvania by 48 percent (Wilson et al. 2012), and in Maryland by 6 percent (Ellison 2010). Most regions in Ontario showed significant increases in the second atlas, as high as 100 percent.

Despite these stable or increasing population trends, Partners in Flight ranked the Black-throated Green Warbler as a "continental and regional stewardship species" in the Atlantic Northern Forest, reflecting the fact that this region supports a large percentage of the species' global breeding population, and therefore has a high re-

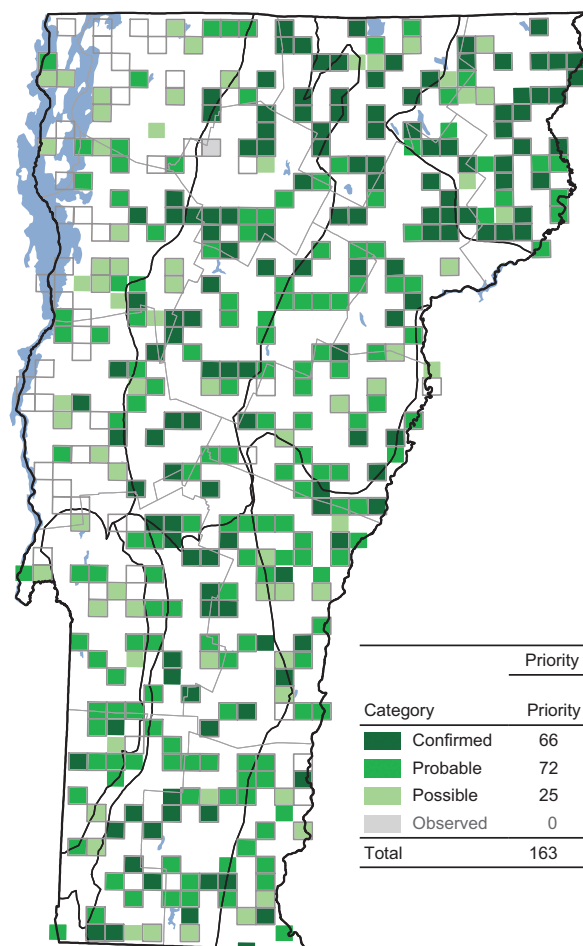
RELATIVE ABUNDANCE OVER TIME





CHANGE IN DISTRIBUTION BETWEEN ATLASES

Biophysical Region	First Atlas	Second Atlas	Change	% Change
Champlain Valley	14	21	+ 7	+ 50
Northeastern Highlands	17	17	+ 0	+ 0
Northern Green Mountains	34	35	+ 1	+ 3
Northern Vermont Piedmont	30	29	- 1	- 3
Southern Green Mountains	26	26	+ 0	+ 0
Southern Vermont Piedmont	19	21	+ 2	+ 11
Taconic Mountains	6	10	+ 4	+ 67
Vermont Valley	2	4	+ 2	+ 100
Totals	148	163	+ 15	+ 10



DISTRIBUTION IN CURRENT ATLAS

Biophysical Region	% of region species occupies	% of all records for this species found in region
Champlain Valley	58	13
Northeastern Highlands	100	11
Northern Green Mountains	96	20
Northern Vermont Piedmont	98	20
Southern Green Mountains	98	17
Southern Vermont Piedmont	90	11
Taconic Mountains	85	6
Vermont Valley	87	2

sponsibility to maintain suitable breeding habitat (Rich et al. 2004). In addition, the hemlock woolly adelgid, an introduced insect pest that has devastated hemlocks from Georgia to Massachusetts (USDA 2009a), has the potential to affect Vermont's Black-throated Green Warbler population, particularly in light of climate change. While the hemlock woolly adelgid was recently documented in southern Windham County, cold winter temperatures appear to be a factor in reducing field populations of this insect and limiting its northward spread (Shields and Cheah 2004). If climate change results in warmer win-

ters, however, the adelgid could continue its northward advance, threatening to destroy one of the Black-throated Green Warbler's primary habitats in Vermont.

STEVEN D. FACCIO